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JUL–SEP 2015

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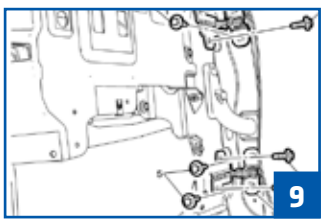

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Fresh Slate of Topics Introduced For GM Technical Training Clinic Program

GM Customer Care & Aftersales (GM CCA) is expanding its commitment to Independent Shop technical education in 2015.

GM is adding eight brand new collision-repair topics to its course offerings in the GM Technical Training Clinic program. The clinics are hosted by GM Parts dealers. Dealers offer the FREE training to their local independent shops.

The new clinics focus on special areas of knowledge needed to correctly repair damaged GM vehicles. The emphasis reflects the growing technical sophistication of modern vehicle structures and systems.

"Vehicles are becoming more complex," says Dale Tripp, manager, engineering, training, quality and brand protection. "With the advent of collision avoidance technology that incorporates radar and cameras, the outer portion of GM vehicles is becoming more hardware laden. It's more important than ever for collision repair techs to understand these technologies and their implications on body damage repair procedures."

To read the rest of the story on GM Technical Training Clinics, go to gmrepairinsights.com

GM Clinic Instructor Jerry Mungle Strives to Illuminate Specifics of GM Vehicle Repair

Just as blind spots put drivers at risk, they exist in the vehicle repair world, too, and spell potential trouble for repair technicians.

"Sometimes you don't know what you don't know," says Jerry Mungle, an instructor in the GM Technical Training Clinic program.

Mungle is guided by a keen understanding of the need to confront the problem. In teaching GM dealer-sponsored clinics for mechanical service and body repair techs, Mungle tries to highlight specialized facets of GM vehicle repairs.

"It's getting harder to say that one size fits all anymore, across different vehicle makes and even within the GM family of vehicles," he says. "Two GM vehicles side by side can be completely different in their structure and design."

The clinics address that problem by focusing on GM-specific information that can guide techs in the nuances of repairing GM vehicles. And, while there's a general script for each subject area, instructors bring their own style to the mix. Mungle, who has taught GM repair for 15 years, is no exception.

Training Should Be Fun

"I really try to make it enjoyable and relevant to what techs are working on and seeing in the course of their GM vehicle work," he says. "I've changed my approach over the years to where it's a more relaxed and less formal environment. I like group discussions, question-and-answer formats and taking the approach of 'let's work through this stuff together."

For more photos and to read the rest of the story on GM Clinics Instructor, Jerry Mungle, go to gmrepairinsights.com

GM OE Parts Update (cont'd.)

GM OE Hinge Pin Kits

Save Shops Time and Money

Part #19260663

When vehicle doors start to sag or become difficult to close, the traditional fix was complete hinge replacement. GM offers an economical alternative with its OE Hinge Pin Kits. The kits are available for most GM vehicles made between 1996 and 2015. Body Shops that deal with door hinge replacements can see significant cost and time savings on every vehicle.

GM Customer Care Aftersales (GM CCA) provides a growing list of OE Hinge Pin Kits to replace worn or damaged door hinges that are common with older vehicles, particularly those that are used in company fleets or service vehicles that see heavy use.

Original door hinges are made to exceed 200,000 cycles (open-close operations). The average consumer vehicle will last a long, long time before requiring a door hinge replacement. But commercial vehicles, like delivery vans and service vehicles can exceed that average much sooner. Wind noise, sagging doors and hard to open/close doors are signs that a door hinge is worn and should be replaced.

Bob Gollehur, product specialist for GM product lines said, "Our OE pin kits are made of top quality stainless steel to provide sustained wear and rust resistance and include an integrally machined or threaded grease fitting. The grease fitting spans the 'work area' of the pin to provide grease to the bushing ride surface for superior wear and longer life. Our pins have grooves (knurls) that lock new pins in place to prevent rotation in the base of the hinge. Binding knurls take up worn areas to provide a tight fit."

The OE Hinge Pin Kits include pins and bushings made from the same high-quality materials as the original hinge and made to original GM engineering standards. The kits also include the hardware required to bolt them onto existing welded hinge assemblies. Shops can install the kits in a fraction of the time it would take to do a full hinge replacement, saving both time and money.

Gollehur added, "Customer demand and our commitment to value inspired the development of the GM OE Hinge Kits. It used to be a lengthy process of cutting off the old hinge, drilling new alignment holes and bolting on an entirely new assembly. With the GM OE Hinge Pin Kit, the shop technician can complete the repair within an hour." The chart below shows some of the most popular hinge pin kits available.

Easy fix for hard to open and sagging doors, install a GM OE Hinge Pin Kit.

Part # L/R Side Indicator	Years	Kits/ Door	Pin Kit Description	Fits Make/Model
19260061 Either Side	2007-2014	1	FRONT & REAR SIDE DOOR HINGES (UPPER & LOWER) Greaseable	(New Style) Chevrolet Silverado, Suburban, Tahoe, GMC Yukon, Yukon XL, Yukon Denali, Yukon Denali XL
	2007-2012			Chevrolet Avalanche
				Cadillac Escalade ESV & EXT
19260063 Either Side	2007-2014 2007-2012	1	FRONT & REAR SIDE DOOR HINGES (Lower Hinge Only) CHECK PIN & ROLLER Greaseable	(New Style) Chevrolet Silverado, Suburban, Tahoe, GMC Yukon, Yukon XL, Yukon Denali, Yukon Denali XL
				Chevrolet Avalanche
				Cadillac Escalade ESV & EXT
19260663 Either Side	1996-2016	1	SIDE CARGO DOOR Greaseable	Chevrolet Express, GMC Savana
19301966 Either Side			REAR CARGO DOOR Greaseable	
19260056 Either Side	2002-2009	2	FRONT SIDE DOOR HINGE	Chevrolet Trailblazer
	2004-2007			GMC Envoy
				Buick Rainier
	2005-2007			Saab 9-7X
19260058 Right	1999-2007	2	FRONT SIDE DOOR HINGE Greaseable w/Link	Chevrolet Silverado & GMC Sierra
	2000-2006			Chevrolet Suburban, Tahoe, GMC Yukon, Yukon XL, Yukon Denali, Yukon Denali XL, Cadillac Escalade ESV & EXT
	2002-2006			Chevrolet Avalanche
19260060 Left	1999-2007	2	FRONT SIDE DOOR HINGE Greaseable w/Link	Chevrolet Silverado, GMC Sierra
	2000-2006			Chevrolet Suburban, Tahoe, GMC Yukon, Yukon XL, Yukon Denali, Yukon Denali XL, Cadillac Escalade ESV & EXT
	2002-2006			Chevrolet Avalanche
19329763 or 19299322	1999-2007	2	FRONT SIDE DOOR HINGE Greaseable	Chevrolet Silverado, GMC Sierra
	2000-2006			Chevrolet Suburban, Tahoe, GMC Yukon, Yukon XL, Yukon Denali, Yukon Denali XL, Cadillac Escalade ESV & EXT
	2002-2006			Chevrolet Avalanche

For a complete list of avaialble GM OE Hinge Pin Kits, go to www.gmrepairinsights.com

GM GENUINE PARTS

2016 CORVETTE Z06
MOST CAPABLE CORVETTE EVER

When the Z06 rejoined the Corvette lineup in 2015 as the most capable model in the car's long, storied history, it also joined an elite fraternity of the world's most capable supercars.

It returns for 2016, offering more choices for personalization to complement its world-class levels of performance – including an all-new C7.R Edition.

The C7.R Edition pays tribute to the Corvette Racing C7.R racecars. It's offered in Corvette Racing's signature yellow livery – or black – with coordinated exterior and interior accents. Only 500 will be built, all with the Z07 Performance Package with carbon ceramic brakes, and a specially serialized vehicle identification number.

Additionally, three all-new color-themed design packages – Twilight Blue, Spice Red and Jet Black Suede – offer custom-tailored appearances that elevate the Z06's presence on the street or track, while features such as an available front parking camera and power-cinching latch for the coupe's hatchback or convertible's trunk enhance convenience – and add an extra measure protection.

Additional cooling elements include larger front fender vents and unique air blades over the inlets on the rear fenders of Coupe models, which force about 50 percent more air into the cooling ducts for the transmission and differential coolers than those on the Stingray. Convertible models feature under-body inlets. To cope with the additional airflow, Z06 Coupe and Convertible also have larger rear-fascia openings than the Stingray. Standard front and rear brake-cooling ducts, including Z06-signature rear ducts integrated in front of the rear fender openings, are also part of the functional design changes over Stingray models.

Ten exterior colors are offered: Laguna Blue Tintcoat, Daytona Sunrise Orange Metallic, Corvette Racing Yellow Tintcoat, Arctic White, Blade Silver Metallic, Black, Shark Gray Metallic, Long Beach Red Metallic Tintcoat, Torch Red and Night Race Blue Metallic.

Track-proven structure and technologies

The Corvette Z06 leverages the technologies introduced on the Corvette Stingray, including the strategic use of lightweight materials and advanced driver technologies, with unique features and calibrations tailored for its capabilities.

For more photos and to read the rest of the 2016 Chevrolet Corvette Z06 story, go to www.gmrepairinsights.com

Generosity of Parts Donors Eliminates Need for Dumpster Diving

Collision Repair Education Foundation Connects Students, Teachers with the Industry

Washburn Tech students in Kansas benefit from part donations to the Collision Repair Education Foundation.

According to a recent Collision Repair Education Foundation study, the average collision repair technician is 39 years old. That same study revealed that 48% of today's repair workforce is between 36 and 55. Demand for skilled technicians is at an all-time high. At the same time, educational funding is on the decline, while classrooms are in desperate need of monetary support, practice parts and tools.

There are approximately 60,000 students enrolled in one of the 1,100-plus collision repair training schools across the country. Students often practice on decades-old vehicles and parts, instructor or student vehicles, and do so with outdated tools and equipment. Some instructors are even forced to "dumpster dive" at local dealerships and repair facilities, just to obtain collision scrap materials for their classes.

The Collision Repair Education Foundation was formed in 1991 to cultivate future collision repair professionals. In its first years of existence, the Foundation provided $300,000 in support to high school and college collision repair programs. By 2015, giving had surpassed the $35 million mark and continues to grow through the generosity of the entire collision repair industry.

It is important to note that nearly 100 percent of materials and funds raised go directly to the schools. Brandon Eckenrode, director of development for the Collision Repair Education Foundation said, "We run a tight ship with just four full time employees at the Foundation. As a result, 94 cents out of every dollar raised supports the very cause we are trying to help."

That support includes student scholarships, tool grants and equipment. The most sought-after items are current model vehicle parts (bumpers, fender, hoods, door skins, etc). This allows students to practice proper collision repair techniques

Donated parts enhance Madison College repair training experience.

on parts they will encounter in the real world. But it doesn't stop there.

Each fall, the Foundation awards an *Ultimate Collision Education Makeover School Grant.* The winning program gets $50,000 to fulfill its collision equipment needs.

The Collision Repair Education Foundation also works to match donors with schools in need and students with repair professionals. The Foundation will be sponsoring a career fair in Chicago, in conjunction with an upcoming NASCAR Sprint Cup Series event. The career fair is expected to draw some 200–300 students, military veterans and numerous businesses from insurance to collision repair.

"The idea is to connect students with potential employers in a business-casual atmosphere," said Brandon Eckenrode. "We see great mutual benefit from this type of event."

Over the past three years, one Iowa GM dealer has donated over $100,000 in parts to school programs through the Collision Repair Education Foundation. The hope is to duplicate this type of donation with dealerships nationwide.

Iowa's Prosser School of Technology teacher, Mike Thacker said, "We're so thankful for the generous donation of bumpers and headlights to our students. We strive to keep current and up-to-date with our students and the industry. It's vital that we allow students to work on recent model parts and cars in order to stay current in the collision repair industry and be an asset to any company they may work for in the future. Donated parts assist our students in this goal."

For more information about donations or getting involved with the Collision Repair Education Foundation, please contact Brandon Eckenrode at Brandon.eckenrode@ed-foundation.org or call 847-463-5244.

Prosser School of Technology students thankful for a charitable donation of practice bumpers received courtesy of their local Chevrolet dealer.

How Can a Dealership Get Involved?

Step 1: Contact the Collision Repair Education Foundation at: info@ed-foundation.org or call 847-463-5244 and provide the following information:

- Dealership physical address
- List of available parts and quantities
- Your preference for a local collision instructor to pick up the parts at your location, or to ship the parts to a collision repair school program.

Step 2: The Collision Repair Education Foundation will **match up your dealership with a collision school program** in need.

Step 3: If your dealership is not able to ship the parts to the school, the collision instructor will arrange a time to pick up the parts from your dealership.

Step 4: Complete a one-page, in-kind donation form so the Collision Repair Education Foundation can record your donation and provide you with a tax receipt, as **your donations to the Education Foundation are tax-deductible.**

Step 5: The Collision Repair Education Foundation will work together with the school's collision instructor to get **photos of the donated parts with the students** to follow up and recognize your dealership's generosity to the collision industry.

COLLISION REPAIR EDUCATION™
FOUNDATION
I-CAR

The Technical Side

Safety System Repair Basics (Part 5 of 5)

Impact Sensor Replacement Guidelines

The impact sensor replacement policy requires replacing sensors in the area of the accident damage. The area of accident damage is defined as the portion of the vehicle which is crushed, bent or damaged due to a collision. An example of this would be a moderate collision where the front of the vehicle strikes an object. If the vehicle has an impact sensor mounted forward of the radiator, it must be replaced.

- Replace the impact sensor whether or not the air bags have deployed.
- Replace the impact sensor even if it appears to be undamaged.
- Verify the correct replacement part number. Do not substitute a component from a different vehicle.
- Use only original GM replacement parts available from your authorized GM dealer. Do not use salvaged parts for repairs to the SIR system.

Impact sensor damage, which is not visible, such as slight bending of the mounting bracket or cuts in the wire insulation, can cause improper operation of the SIR system. Do not try to determine whether the impact sensor is undamaged. Instead, replace the impact sensor. Also, if you follow a diagnostic trouble code (DTC) procedure and a malfunctioning impact sensor is indicated, replace the impact sensor.

SIR Disabling and Enabling

SIR component location affects how a vehicle should be serviced. There are parts of the SIR system installed in various locations around a vehicle. To find the location of the SIR components, refer to GM Service Information, available for purchase at http://www.acdelcotechconnect.com/shop-program/psc-program/gm-service-information/

The following information covers the proper procedures for disabling/enabling the SIR system.

Condition	Action
If the vehicle was involved in an accident with an air bag deployment.	Disconnect the negative battery cable(s).* Refer to *Repairs and Inspections Required After a Collision.*
When performing SIR diagnostics.	Follow the appropriate SIR service manual diagnostic procedure(s).*
When moving, removing or replacing an SIR component or a component attached to an SIR component. (Anytime you remove fasteners.)	Disconnect the negative battery cable(s).*
If the vehicle is suspected of having shorted electrical wires.	Disconnect the negative battery cable(s).*
When performing electrical diagnosis on components other than the SIR system.	Remove the SIR/Airbag fuse(s) when indicated by the diagnostic procedure to disable the SIR system.
**DTC's may be lost when the negative battery cable is disconnected.*	

SIR Service Precautions

Warning: When performing service on or near the SIR components or the SIR wiring, the SIR system must be disabled. Failure to observe the correct procedure could cause deployment of the SIR components. Serious injury can occur. Failure to observe the correct procedure could also result in unnecessary SIR system repairs.

The Inflatable Restraint Sensing and Diagnostic Module (SDM) maintains a reserved energy supply. The reserved energy supply provides deployment power for the air bags if the Inflatable Restraint Sensing and Diagnostic Module loses battery power during a collision. Deployment power is available for as much as 2 minutes after disconnecting the vehicle power.

Waiting 2 minutes before working on the system after disabling the SIR system prevents deployment of the air bags from the reserved energy supply.

Disabling Procedure – Air Bag Fuse

1. Turn the steering wheel so that the vehicle's wheels are pointing straight ahead.
2. Place the ignition in the OFF position.

Warning: The SDM may have more than one fused power input. To ensure there is no unwanted SIR deployment, personal injury or unnecessary SIR system repairs, remove all fuses supplying power to the SDM. With all SDM fuses removed and the ignition switch in the ON position, the AIR BAG warning indicator illuminates. This is normal operation and does not indicate an SIR system malfunction.

3. Locate and remove the fuse(s) supplying power to the Inflatable Restraint Sensing and Diagnostic Module. Refer to *SIR Schematics* or *Electrical Center Identification Views* in the GM Service Information.
4. Wait 2 minutes before working on the system.

Enabling Procedure – Air Bag Fuse

1. Place the ignition in the OFF position.
2. Install the fuse(s) supplying power to the Inflatable Restraint Sensing and Diagnostic Module. Refer to *SIR Schematics* or *Electrical Center Identification Views* in the GM Service Information.
3. Turn the ignition switch to the ON position. The AIR BAG indicator will illuminate or flash then turn OFF.
4. Perform the Diagnostic System Check – Vehicle if the AIR BAG warning indicator does not operate as described. Refer to *Diagnostic System Check - Vehicle* in the GM Service Information.

Disabling Procedure – Negative Battery Cable

1. Turn the steering wheel so that the vehicle's wheels are pointing straight ahead.
2. Place the ignition in the OFF position.
3. Disconnect the negative battery cable from the battery.
4. Wait 2 minutes before working on system.

Enabling Procedure – Negative Battery Cable

1. Place the ignition in the OFF position.
2. Connect the negative battery cable to the battery.
3. Turn the ignition switch to the ON position. The AIR BAG indicator will illuminate or flash, then turn OFF.
4. Perform the Diagnostic System Check – Vehicle if the AIR BAG warning indicator does not operate as described. Refer to *Diagnostic System Check - Vehicle* in the GM Service Information.

The Technical Side (cont'd.)

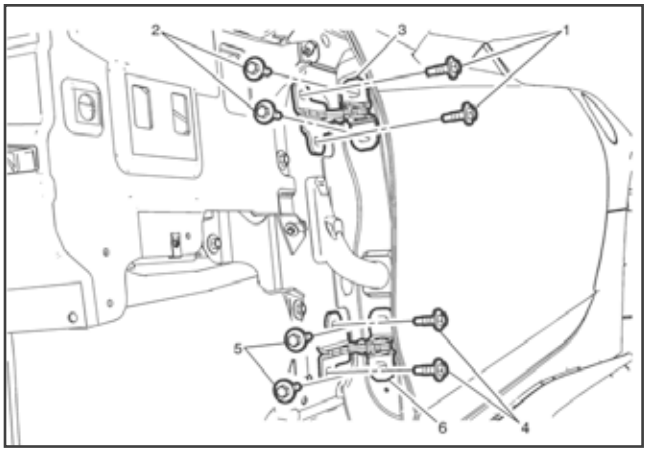
2015 Chevrolet Corvette Repair Procedure

Even though the Chevrolet Corvette is a new vehicle, service and repair resources are just a click away at **www.gmtechinfo.com** – *Electronic Service Information.* Technicians and shop owners can log onto the site to gain access to subscription services for service procedures and repair manuals. A complete Service Manual is accessible 24/7 through a subscription to the site. Free collision repair procedures are available at: **www.genuinegmparts.com.**

Front Side Door Upper Hinge and Lower Hinge Replacement

Preliminary Procedure

Mark the location of the hinge with a grease pencil before removing the bolts.



1 Front Side Door Upper Hinge to Body Bolt (Qty: 2)
Caution: *Refer to Fastener Caution.*

Procedure

1. Before removing the door, apply a double layer of masking tape around the perimeter of the painted surfaces.
2. Support the door before removing the hinge bolts. **Tighten:** 35 Y (26 lb ft)

2 Front Side Door Upper Hinge to Door Bolt (Qty: 2) **Tighten:** 35 Y (26 lb ft)

3 Front Side Door Upper Hinge

4 Front Side Door Lower Hinge to Body Bolt (Qty: 2) **Tighten:** 35 Y (26 lb ft)

5 Front Side Door Lower Hinge to Door Bolt (Qty: 2) **Tighten:** 35 Y (26 lb ft)

6 Front Side Door Lower Hinge

Procedure

If the door striker needs adjusting, refer to *Front Side Door Lock Striker Adjustment.* ***Note:*** *Inspect the door for proper operation.*

Points for Pars

Hardworking Arkansas Body Shop Owner Indulges His Passion With GM Rewards Purchase

For years, Bob Morey has used Genuine GM Parts to ensure he repairs vehicles professionally, but now Genuine GM Parts are even helping him on the golf course.

Morey owns Bob Morey's Auto Body, Inc., in Bentonville, AR, and recently cashed in 500 Genuine GM Rewards points collected for buying qualifying Genuine GM Parts.

Morey said, "I was looking through the golf equipment section of the program merchandise catalog, and there it was, the exact club I had been thinking about buying," he says. "It was great timing. I was able to get it for nothing out-of-pocket."

Morey's new driver is helping him improve his distance and accuracy off the tee. A 15-handicapper, he's a regular in a group that plays weekly at courses in nearby Bella Vista, AR. They all like to show off the latest gear, and now it's Morey's turn to show off his new Titleist 915 driver.

"I've had Titleist drivers before, and this is their latest and greatest. So far, it's a great club."

Morey has been enrolled in Genuine GM Rewards for a couple of years. He started thinking about cashing in when he noticed his account balance was around 1,000 points. When he learned points could be redeemed for golf equipment, he made a beeline for the online rewards catalog.

"My rep at our GM dealer told me how easy it was to shop with the Genuine GM Rewards program," Morey says. "He knew I wanted that driver, too, and he suggested I check it

out. It took me about five minutes to complete the purchase and I had the club a few days later."

With a 500-point balance remaining in his account, Morey plans to let the points accumulate. That won't be a problem because a third of his business is GM vehicles, and every chance he gets, he chooses Genuine GM Parts.

"I really prefer to put factory parts on because they're consistently higher quality and they fit the first time," he says. "My first option is always to see if OE will match the aftermarket price. It's a great feeling when you can tell a customer they'll get OE parts even when their insurer will only pay for aftermarket parts."

Morey isn't sure what he'll purchase next with his Genuine GM Rewards points. Something for his wife and business partner, Amber, perhaps. Maybe something for the business. Then, again, there's always golf. "I saw that you can get a golf cart for 7,000 points," he says. That's a lot of Genuine GM Parts. But after hearing his enthusiasm, I'm certain he'll have those points in no time.

GENUINE PARTS

CLIP AND PLACE BY YOUR TELEPHONE OR COMPUTER

Give us a call for Genuine GM Parts and associated collision repair parts. All at one convenient location.

All the stories in Repair Insights, additional content and pictures available at gmrepairinsights.com